

NOTES ON NEW ENGLAND TACHINIDÆ, WITH THE
DESCRIPTION OF ONE NEW GENUS AND TWO NEW
SPECIES.

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Pseudotachinomyia gen. nov.

Head wider than thorax, antennæ inserted above the eye middle, as viewed from the side, the head projects in front of the eye, nearly one-half the horizontal diameter of the eye. Proboscis robust, shorter than height of head, palpi large, vibrissæ strong, cruciate, placed slightly above the front edge of the oral margin. Facial ridges bristly on at least the lower half, antennæ nearly as long as face, frontal bristles descending below the base of the third antennal joint. Eyes bare (microscopically, sparsely hairy), sides of face on lower half bare, less than one-third as wide as the facial depression, ocellar bristles proclinate. Wings hyaline, the first longitudinal vein bare, apical cell open, ending well before the extreme wing tip, bend of fourth longitudinal vein without distinct stump or long wrinkle. Abdomen short conical, male hypopygium projecting, female with wide, shining black pseudo-ovipositor. Type, the following species:

Pseudotachinomyia webberi sp. nov.

Black, gray pollinose species. Length, 6-10 mm.

Front in male nearly as wide as, in female about one and one-third times as wide as either eye, frontal vitta opaque brownish black, wider than sides of front. Parafrontals yellowish gray pollinose, frontal bristles in a single row, outside of these numerous fine, long, bristly hairs. Antennæ black, faintly tinged with rufous at base of third antennal joint, the third joint in male about five times as long as, in female from two and one-half to three times as long as, the second. Arista as long as the antennæ, microscopically sparsely pubescent, thickened on approximately the basal third, the penultimate joint two times as long as broad, cheeks at least one-fourth as wide as the eye height, palpi yellow. Thorax

grayish pollinose, as viewed from behind, marked with four wide black vittæ. Three postsutural and three sternopleural macrochaetae. Scutellum black or reddish yellow at apex, densely gray pollinose, bearing three pairs of long marginal and a shorter cruciate apical pair of macrochaetae. Scutellar disk clothed with many fine long erect hairs and a pair of discal macrochaetae. Legs black, knees yellowish, front pulvilli in male about as long as, in female one-half as long as, the last tarsal joint. Middle tibiae on the outer front side each, bearing several long macrochaetae, the hind tibiae with a row of stout bristles of irregular length. Abdomen yellowish gray pollinose, marked with several distinct shining black reflecting spots and a median black vitta. First segment bearing a median marginal pair of macrochaetae, second segment a median discal and marginal pair, third segment a median discal pair and a marginal row, and the fourth segment a discal and marginal row. Fine, long, bristly hairs of abdomen sub-erect. Male hypopygium projecting, the genitalia curving forward beneath the fourth abdominal segment, the tip of the forceps resting in a sheath formed by a bisected flap-like projection on either side of the median venter of the fourth segment. Ventral aspects of forceps at base somewhat narrow, gradually broadening to their greatest width, whence they taper to a point at the tip. Inner margin of forceps on basal half, and the outer margin bearing bristly black hairs, the remaining surface shining brownish black with a few scattered black hairs. In the female the sheath of the ovipositor is similar in form to sheath of forceps in the male, but is not bisected on its front surface. The female ovipositor is not distinctly visible, but what appears to be this organ is shining black in color, broad at base and sharply pointed at tip. Wings longer than abdomen, small cross-vein far before tip of first longitudinal vein, third longitudinal vein bearing two to six bristles at its base, posterior end of hind cross-vein nearer to bend of the fourth longitudinal vein than to the small cross-vein. Calypteres milky white.

Described from 4 males and 9 females. (Holotype, U. S. N. M. Cat. No. 20201) a male taken at Melrose Highlands, Mass., May 16, '15. (Allotype, U. S. N. M.) a female taken at Malden, Mass., May 15, '15. (Paratypes) 1 male, 4 females taken at Malden, Mass., May 28, '15; 2 males, 3 females taken at Melrose High-

¹ Vestigial first abdominal segment not considered.

lands, Mass., June 15, '14, and May 20 to June 2, '15, placed in collection of author and the Gypsy Moth Parasite Laboratory. (Paratype) one female taken at Amherst, Mass., by unknown student at Massachusetts Agricultural College, during May or June, 1914, placed in collection of that institution. With the exception of the Amherst specimen, the others were taken by Mr. R. T. Webber, after whom this fine species is named.

Sciasma frontalis sp. nov.

Shining bluish black, destitute of pollen. Length, 4 mm.

Front one and one-third times as wide as either eye, frontal bristles descending to middle of second antennal joint, outside of these an anterior pair of proclinate and a pair of reclinate bristles. Ocellar bristles very weak, directed divergently forward, frontal vitta about four-fifths as wide as sides of front. Parafrontals to base of second antennal joint opaque black, parafacials fulvous, eyes bare. Sides of face on lower half bare, about two-fifths as wide as the frontal vitta, facial plate deeply concave, hardly one-half as wide at base of antennæ as at the vibrissæ. Antennæ orange yellow, the second joint nearly as long as the third, arista black, thickened on the basal fourth to one-third, the penultimate joint broader than long. Vibrissæ cruciate, placed on a level with the front edge of the oral margin, diameter of head at vibrissæ about as long as at base of antennæ, cheeks one-tenth as wide as the eye height. Thorax shining bluish black, not vittate, one postutural and two sternopleural macrochætæ. Scutellum bearing a single pair of long marginal and a shorter apical pair of macrochætæ. Legs black, except the front coxæ and femora which are yellowish, hind tibiæ pectinate with two or three widely separated short bristles. Abdomen flattened, somewhat conical in shape, clothed with short appressed bristly hairs, several weak macrochætæ on margin of the fourth segment, the genitalia large and bulbous, curving forward beneath the fourth segment. Wings to tip of the second longitudinal vein wholly smoky brown, the remainder hyaline, veins destitute of setulæ, apical cell closed, the apex of third longitudinal vein obsolete. Anterior pair of calypteres subhyaline, the posterior pair smoky brown.

Described from a single female (Holotype) taken by the writer at West Springfield, Mass., August 13, 1915. Placed in the col-

lection of the Boston Society of Natural History. There is no evidence of the palpi being present in the specimen, and as these do not appear to be hidden in the oral cavity, nor the specimen to have been injured at this point, it is not improbable that more material will prove this species generically distinct.

Pelatachina pellucida Coq.¹

During May, 1912, the writer reared specimens of this species at the Gypsy Moth Parasite Laboratory. The tachinid maggots had emerged from the larvæ of *Euvanessa antiopa* Linn., during the month of August, 1911, hibernating in the puparia through the winter of 1911-12. From 344 of the lepidopterous larvæ taken in the Lynn Woods, Mass., 214 puparia of this tachinid were obtained. Superparasitism existed to a great extent in the host larvæ, thus, the figures do not indicate the exact percentage of parasitism. The maggots live within the host, located in typical integumental funnels. The anal stigmata of the puparia are highly raised with the dorsal surface reticulated. A series of the reared specimens compared with the type of the species in the United States National Museum, appear identical with the specimen described by Coquillett. To my knowledge, this is the first record of this genus having been reared in North America although Brauer and Bergentamm² record the rearing of the genotype, *Pelatachina tibialis* Fall. from *Vanessa urticae* Linn. in Europe.

Compsilura concinnata Meig.

Since the introduction of this species from Europe and the establishing of it in the United States, by the United States Bureau of Entomology, as one of the foremost primary parasites of *Porthetria dispar* Linn. and *Euproctis chrysorrhæa* Linn., it is known to have been reared from more than twenty species of native North American Lepidoptera. In the study of reared Tachinidæ from various New England sources, it has been noted that this species is particularly prolific as a parasite of *Euvanessa antiopa* Linn. In certain instances of its parasitism upon this host in the New

¹ Rev. N. Amer. Tach., p. 65. In the Proc. Biol. Soc. Wash., Vol. xxviii, pp. 19-24, Feb. 12, 1915. Townsend proposed the genus *Eohyria* for the reception of *P. pellucida* Coq., designating it the genotype.

² Die Zweiflügler des Kais. Mus. zu Wien., p. 558.

England States, the percentage of parasitism has been well over 50 per cent. At times, as many as five maggots have matured within an individual host. I have before me a single female of this species, reared from *Callosamia promethia* Drury, May 2, 1914, by Mr. William Reiff at Forest Hills, Mass. These data appear to establish the fact that *Compsilura concinnata* hibernates through the winter in New England in the pupa of this host. The writer has also reared a male and female of this species, from a pupa of *Diacrisia virginica* Fabr., taken as a larva late in the fall of 1915 at West Springfield, Mass., the adult *Compsilura* issuing May 12-15, 1916. The tachinid maggots apparently hibernate in the host pupa until just before they are ready to pupate, whence, they leave the host pupa, probably in early April, and pupate within the cocoon of their host.

Exoristoides slossonæ Coq.¹

Three males of this species before me, taken at Bennington, Vt.² June 18, 1915, by Mr. C. W. Johnson. One male with setulæ present upon the first longitudinal vein agrees in detail with Coquillett's description of *slossonæ*. The remaining two specimens without the presence of setulæ upon the first longitudinal vein, agree with the description of *Exorista spinipennis* Coq.,² yet it is evident that all three specimens are conspecific. The character of setulæ being present upon the first longitudinal vein, within the limits of *E. slossonæ*, is a variable one. With the exception of this character the descriptions of *Exorista spinipennis* and *E. slossonæ* are almost identical. I consider *Exorista spinipennis* Coq. a synonym of *Exoristoides slossonæ* Coq.

¹ Rev. N. Amer. Tach., p. 90-91.

² Rev. N. Amer. Tach., p. 95.